

Listing of Claims:

The listing of claims below will replace all prior versions and listings of claims in the application.

1.-219. (Canceled)

220. (Previously presented) A method of isolating an end population of skeletal muscle-derived progenitor cells (MDCs), comprising:

- (a) plating a suspension of skeletal muscle cells from skeletal muscle tissue in a first container to which fibroblast cells of the skeletal muscle cell suspension adhere,
- (b) re-plating non-adherent cells from step (a) in a second container, wherein the step of re-plating is after 15-20% of cells have adhered to the first container;
- (c) repeating step (b) at least once;
- (d) isolating the skeletal muscle-derived MDCs.

221. (Canceled)

222. (Previously presented) A method of isolating an end population of muscle-derived progenitor cells (MDCs), comprising:

- (a) plating a suspension of muscle cells from skeletal muscle tissue in a first collagen-coated container to which fibroblast cells of the muscle cell suspension adhere;
- (b) re-plating non-adherent cells from step (a) in a second collagen-coated container, wherein the step of re-plating is after 30-40% of cells have adhered to the first container;
- (c) repeating step (b) at least once to enrich for an end population of viable, non-fibroblast, desmin-expressing cells in the second container; and
- (d) isolating the MDCs as the end population of viable, non-fibroblast, desmin-expressing cells.

223.-229. (Canceled)

230. (New) The method according to claim 220, wherein step (b) is repeated at least five times.

231. (New) The method according to claim 220, wherein the MDCs are introduced into an area of muscle tissue selected from the group consisting of esophageal muscle tissue, gastroesophageal muscle tissue, sphincter muscle tissue, bladder muscle tissue, ureteral-bladder tissue and skin tissue to augment or bulk the tissue.

232. (New) The method according to claim 220, further comprising the step of isolating a clonal population of MDCs.

233. (New) The method according to claim 232, wherein the clonal population of MDCs is introduced into an area of muscle tissue selected from the group consisting of esophageal muscle tissue, gastroesophageal muscle tissue, sphincter muscle tissue, bladder muscle tissue, ureteral-bladder tissue and skin tissue to augment or bulk the tissue.

234. (New) The method according to claim 222, wherein step (b) is repeated at least five times.

235. (New) The method according to claim 222, wherein the MDCs are introduced into an area of muscle tissue selected from the group consisting of esophageal muscle tissue, gastroesophageal muscle tissue, sphincter muscle tissue, bladder muscle tissue, ureteral-bladder tissue and skin tissue to augment or bulk the tissue.

236. (New) The method according to claim 222, further comprising the step of isolating a clonal population of MDCs.

237. (New) The method according to claim 236, wherein the clonal population of MDCs is introduced into an area of muscle tissue selected from the group consisting of esophageal muscle tissue, gastroesophageal muscle tissue, sphincter muscle tissue, bladder muscle tissue, ureteral-bladder tissue and skin tissue to augment or bulk the tissue.